REMARKS / ARGUMENTS

The present application includes pending claims 1-31. Claims 1 and 11- 21 have been amended to clarify the claim language and to further prosecution. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 11-20 are rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter.

Claims 1-3, 8-13, 18-23 and 28-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable by USPP 2003/0035437 ("Garahi") in view of USP 7,058,040 ("Schmidt"). Claims 4-7, 14-17 and 24-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Garahi in view of USP 6,810,409 ("Fry").

I. Rejection Under 35 U.S.C. § 101

Claims 11-20 are rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. The Applicant respectfully traverses the rejection. Nevertheless, to further prosecution, the Applicant has amended claims 11-20 to overcome the 35 U.S.C. § 101 rejection by reciting a "non-transitory computer-readable medium".

A. Support for "Computer-Readable Medium" in the Specification

The Applicant submits that 37 CFR § 1.75(d)(1) states the following:

> The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that **the meaning of the terms in the claims may be ascertainable by reference to the description.**

The Applicant respectfully submits that the specification in the present application does provide antecedent support for the subject matter claimed in claims 11-20. Referring to the specification at FIG. 4 and paragraphs [51]-[60], for example, discloses a memory storage (404), and code and/or data may be stored and/or retrieved from the memory storage (404) by a processor (402) (e.g., within transceiver (410)). Accordingly, the Applicant respectfully submits that the specification discloses that, for example, the memory storage (404) comprises a "computer-readable medium".

B. Permissible Use of "Computer-Readable Medium" in the Claims

In reference to the use of "computer-readable medium", the Examiner is referred to p. 52 of the "Interim Guideline for Examination of Patent Applications for Patent Subject Matter Eligibility" (IGPSME), which states the following:

> Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer… Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized.

See the IGPSME at pages 52-53. Even though data structures not claimed as embodied in computer-readable media, as well as computer programs claimed as

computer listings per se, are not statutory subject matter, the Applicant points out that **claims 11-20 of the present application do not fall under any of the above mentioned non-statutory subject matter categories**. The Examiner is referred to the following IGPSME citation:

> In contrast, **a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships** between the computer program and the rest of the computer which permit the computer program's functionality to be realized, **and is thus statutory**. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.
>
> Computer programs are often recited as part of a claim. **USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine.** In such a case, **the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program.** Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.

See the IGPSME at page 53. Claims 11-20 in the present invention relate to computer-readable medium for storing a computer program having at least one code section for processing signals in a communication system. Furthermore, the code sections may be executed by a machine for causing the machine to perform the method steps recited by, for example, claims 1-10. Therefore, claims 11-20 define statutory subject matter as per the above IGPSME citation.

The Examiner is also referred to the following MPEP citation for support:

> **When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and**

> **functionally interrelated to the medium and will be statutory** in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

See MPEP § 2106.01. The Applicant, therefore, submits that claims 11-20 are directed to statutory subject matter (i.e., a "computer-readable medium").

C. Non-Transitory Computer-Readable Medium

The Examiner is referred to the following citation from the 1/26/2010 guidelines by USPTO Director David J. Kappos regarding "Subject Matter Eligibility of Computer Readable Media":

> The USPTO recognizes that applicants may have claims directed to computer readable media that cover signals *per se,* which the USPTO must reject under 35 U.S.C. § 101 as covering both non-statutory subject matter and statutory subject matter. **In an effort to assist the patent community in overcoming a rejection or potential rejection under 35 USC § 101 in this situation, the USPTO suggests the following approach. A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 USC § 101 by adding the limitation "non-transitory" to the claim.** *Cf. Animals - Patentability,* 1077 *Off. Gaz. Pat. Office* 24 (April 21, 1987) (suggesting that applicants add the limitation "non-human" to a claim covering a multicellular organism to avoid a rejection under 35 US.C. § 101). ***Such an amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals per se.***

Pursuant to the above guidelines by USPTO Director Kappos, the Applicant has inserted the term "non-transitory" to overcome the 35 U.S.C. § 101 rejection. The Applicant notes that, as mentioned by Director Kappos above, such an

amendment does not raise the issue of new matter since a signal per se is not the only viable embodiment (e.g., see section A above).

Therefore, the Applicant submits that the rejection of claims 11-20 under 35 U.S.C. § 101 has been overcome and claims 11-20 are allowable.

REJECTION UNDER 35 U.S.C. § 103

The MPEP states the following regarding the requirements for establishing a *prima facie* case of obviousness:

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

See MPEP at § 2142, citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), and *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" *See id.,* § 2143.01. Furthermore, in order to render the claims obvious, the asserted prior art combination must **teach or suggest each and every claim feature**. *See In re Royka*, 490 F.2d 981 (CCPA 1974) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art); *see also In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d

1565, 1572 (Fed. Cir. 1995) (A proper obviousness determination requires that an Examiner make "a searching comparison of the claimed invention – **including all its limitations** – with the teaching of the prior art.")

If a *prima facie* case of obviousness is not established, the Appellant has no obligation to submit evidence of nonobviousness:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

See MPEP at § 2142.

With these principles in mind, the Appellants now turn to the claim rejections in particular.

II. The Combination of Garahi and Schmidt Does Not Render Claims 1-3, 8-13, 18-23 and 28-31 Unpatentable

A. Rejection of Independent Claims 1, 11 and 21

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Garahi and Schmidt does not disclose or suggest at least the limitations of "allocating, based on said determined protocol, a processor within said access point, said processor compatible with said determined protocol," as recited in Applicant's claim 1.

The Office Action states the following (*see* page 4):

> "Regarding claim 1, Garahi discloses a method for providing communication in a multi-band multi-protocol hybrid wired/wireless network, the method comprising:
> - determining by an access point, a protocol associated with a communication signal for the access point (AP) (access point selects a

> protocol to support multiple wireless protocols, see abstract and ¶.20; Intelligent Access Point (IAP) uses IEEE 802.11 a,
> 802.11 b, and 802.11 g, see ¶.43) and;
> - processing the communication signal by a processor within the access point (processor in AP, see 136 fig.2, 136-1 fig.3, ¶.36, and ¶.39). Garahi discloses that IAP may use low power schemes for short range network connections, such as those presented in IEEE standards 802.11 a, 802.11 b, and 802.11 g (see ¶.43),..."
>
> Garahi discloses that IAP may use low power schemes for short range network connections, such as those presented in IEEE standards 802.11 a, 802.11 b, and 802.11 g (see ¶ 43), but does not explicitly disclose "allocating a processor within the access point, the processor compatible with the determined protocol."
>
> However, Schmidt discloses a plurality of CPUs and a plurality of digital signal processors (DSPs) in a communication device (151 and 153 fig.2A) and the processors 151 and 153 can be configured to operate optimally on specific problems (see col.5, Ins.51-57)." A DSP is a specialized microprocessor with an optimized architecture for the fast operational needs of digital signal processing.

The Office Action concedes that Garahi does not disclose "allocating a processor within the access point, the processor compatible with the determined protocol", and then relies for support on Schmidt.

Schmidt discloses a multi-mode wireless communication device 100 (Fig. 2A), which utilizes data transmission over first and second media that overlaps in frequency, by computing one or more time division multiple access (TDMA) time-slot channels to be shared between the first and second media for data transmission. Referring to Fig. 2A, the multi-mode wireless communication device 100 utilizes a reconfigurable processor core 150, which includes MIPS processors 151 and digital signal processors (DSPs) 153. However, even though the multi-mode wireless communication device 100 utilizes multiple processors (151 and 153), Schmidt is still

deficient. More specifically, configuration and operation of the processors 151 and 153 is based on "optimal operation" and conservation of power (*See* Schmidt at col. 5, line 66 – col. 6, line 3), and not on a determined protocol.

For example, the bank of DSPs 153 can be optimized to handle computational-intensive tasks, such as discrete cosine transforms (DCTs) or Viterbi encodings. (*See id.* at col. 5, lines 59-61). Schmidt, however, does not disclose that a specific processor (from the processors 151 and 153) is allocated to perform processing tasks associated with a specific protocol. Furthermore, Schmidt does not disclose that any processor allocation is performed based on a determined protocol, as recited in Applicant's claim 1. In fact, Schmidt utilizes all of its processors 151 and 153 at any given time, and "conservation of power" is achieved only by activating and deactivating (based on signal strength) of the short-range wireless transceiver core 130 and the cellular radio core 110. (*See id.* at col. 7, line 40 – col. 8, line 32). Therefore, the Applicant maintains that the combination of Garahi and Schmidt does not disclose or suggest at least the limitations of "allocating, based on said determined protocol, a processor within said access point, said processor compatible with said determined protocol," as recited in Applicant's claim 1.

Based on the foregoing rationale, independent claim 1 is not rendered unpatentable by the combination of Garahi and Schmidt, and is allowable. Independent claims 11 and 21 are similar in many respects to the method disclosed in independent claim 1, are also allowable at least for the reasons stated above with regard to claim 1.

B. Rejection of Dependent Claims 2-3, 8-10, 12-13, 18-20, 22-23 and 28-31

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 11 and 21 under 35 U.S.C. § 103(a) as being unpatentable by the combination of Garahi and Schmidt has been overcome and requests that the rejection be withdrawn. Additionally, claims 2-3, 8-10, 12-13, 18-20, 22-23 and 28-31 depend from independent claims 1, 11 and 21, respectively, and are, consequently, also respectfully submitted to be allowable.

III. The Proposed Combination of Garahi, Schmidt and Fry Does Not Render Claims 4-7, 14-17 and 24-27 Unpatentable

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 11 and 21 under 35 U.S.C. § 103(a) as being unpatentable by the combination of Garahi and Schmidt has been overcome and requests that the rejection be withdrawn. Fry does not overcome the deficiencies of Garahi and Schmidt. Additionally, claims 4-7, 14-17 and 24-27 depend from independent claims 1, 11 and 21, respectively, and are, consequently, also respectfully submitted to be allowable.

CONCLUSION

Based on at least the foregoing, the Applicant believes that all claims 1-34 are in condition for allowance. If the Examiner disagrees, the Applicant respectfully requests a telephone interview, and requests that the Examiner telephone the undersigned attorney at (312) 775-8000.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to the deposit account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

A Notice of Allowability is courteously solicited.

Respectfully submitted,

Date: 08-APR-2011

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